M. A. R. 57 (Rule 116)
Measurement Book

No. B 497237

Serial No. First and Final Bill

Name of Work Drilling of New Borewell, Instaling Pump Motor and Providing pipeline, in Ward No-06.

Name of Contractor of nature of Agency Sri. H.V. Nagaraj M/s. Kranthi Electricals.

Date of commencement of work D.O. Recording : 30.09.2019

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Est. Cost :-	20.00 Lakhs.					
	Job code :-	006-19-000056					
	Work order No:-	BBMP/EE/BTP/WO/58/2019-20.					Dt. 15.01.2019
	A.S. No	AS/CBCYNK/18/19-20. Dt. 09.05.2019					
	T.S. No	TS/EE CBTP/19-20/ Dt. 09.05.2019					
	Date of Commencement :	16.07.2019					
	Date of Completion :	30.09.2019					

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(1)	Geophysical Investigation of site for sinking borewell for supplying drinking water to the habitation either through the hand pump, MWS or P.W.S.S. by vertical electrical sounding by adopting Venner or Schlumbergers's Method, including reconnaissance survey of geological formation. Geological Investigation of existing ground water in vicinity.) Its quality, quantity & acceptability of the users) indicating the location of site Recommended depth of casing pipe required to seal the Top unconsolidated formation including an extra depth of 1.0Mtr in consolidated formation for proper seating of Casing pipe, depth of drilling required to cover full depth of aquifer Proposed to be tapped.						

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M. A. R. 57 (Rule 116)
Measurement Book

No. B 497238

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Probable yield and other information required Including transportation of Instrument and accessories to work site. engaging technical Personal and labour required etc.						
	1) Masthri palya School:-	1		unit @ 1938.00			
	2) Rachenahalli near over Tank.	1		unit @ 1938.00			3876.00
		Total:		3876.00			

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(2)	Sinking of borewell of 165mm dia clear using Super fast hydraulic Rig of capacity 250 PSIG & above 900 CMF & above in all strata Including over budern upto 20m. fixing of casing pipes collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, Crew Charges & cost of consmables etc. Complete including yield testing at the final depth with minimum working of Compressor for one hour (excluding cost of Casing pipes, collars, Cap and etc)						
	Borewell-1 CH 0 TO 50.00 MTS	2	50.00	—	—	100.00 MTS	
	Borewell-2			@ RS 315.00/MTS			31500.00

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M. A. R. 57 (Rule 116)
Measurement Book

No. B 497239

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
③	51 TO 100 MTS	2	50.00	—	—	100.00 MTS @ Rs 412.00/MTS	41200.00
④	101 TO 150 MTS	2	50.00	—	—	100.00 MTS @ Rs 458.00/MTS	45800.00
⑤	151 TO 200 MTS	2	50.00	—	—	100.00 MTS @ Rs 484.00/MTS	48400.00

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(6)	201 TO 250 MH	2	50.00	-	-	100.00	
			@ RS = 560.00/MH				56000.00
(7)	251 TO 300 MH	2	50.00	-	-	100.00	
			@ RS = 600.00/MH				60000.00
(8) (1)	301 TO 376 MH	1	76.00	-	-	76.00	
(2)	301 TO 374 MH	1	74.00	-	-	74.00	
						150.00 MH	
			Qty limited TO			140.00 MH	
			@ RS = 622.00/MH				87080.00

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M. A. R. 57 (Rule 116)
Measurement Book

No. B 497240

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	(9) Supplying of ISI Mark 175mm nominal bore Medium black ERW Casing pipe of 5mm thick black electric resistance continous welded midle steel tube Material Confirming to IS 1387/1993 and Manufactured from hot ~~ro~~ hot rolled steel strip/stripes in random lenght of 4 to 7 Mtr both ends threaded Confirming to IS 554/1985 one end, and etc. - -						
	Bore well . 1	10	6.00 Mt	–	–	60.00	
		1	4.00	–	–	4.00	

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measuremer
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Bore well.2	10	6.00	-	-	60.00	
		1	5.00	-	-	5.00	
					Total	129.00 M+1	
		Qty limited TO				120.00 M+1	
			@ RS	1364			163680.00
(10)	Providing and fixing 250mm dia PVC pipe and as per specification and directions.						
		2	10.00	-	-	20.00	
		@ RS	1133.00				22660.00

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M. A. R. 57 (Rule 116)
Measurement Book

No. B 497241

Serial No. .....
Name of Work ..... From..... To.....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(11)	175mm dia M.S. Casing Cap.						
		2	—	—	—	2 Nos	
		@ Rs. 103.00					206.00
(12)	M.S. Casing pipe collars 'C' class.						
		18	—	—	—	18 Nos	
		@	Rs.	154.00			2772.00

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(13)	Fabricating Supplying and Mounting MS box of 16 SWG suitable for floor/wall Mounting. fully weather Proof with provision for better hear description. (providing with hinged front cover, equipped with tamper Proof locking arrangements. with suitable size Clamps with necessary cable entry pipe with gland and box should be finished 2 Coats of Red oxide primes paint and finally finished with approved colour enamelled metal Paint etc. Complete box of 21600 sq Cm,	2	1100.00	20.00	–	44000.00	14960.00
			@ Rs. 0.34				

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No. B

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Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(14)	Labour Charges for erection of new/repaired Submersible Pumpset along with GI pipes (32/50mm) Cable (new Submersible Pumpset if required will be supplied by the department free of Cost and released pump set should be handed over to department) Including transportation.						
		2	45.00	–	–	90.00/length	
			@ Rs. 90.00/length				8100.00

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measureme
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(15)	Erection of Combined panal board meter board with all necessary Materials and labour including providing CC 1:3:6 foundation bed etc.. Complete for basement out door Ty						
		2	–	–	–	2 nos	
			@ Rs. 475.00				950.00
(16)	Supplying and fixing 4 porcelain fuse channel with Cutout on existing wooden/panel using necessary nuts, bolts and washer etc complete.						
	2x3:	6	–	–	–	6 Nos	
			@ Rs 150.00				900.00

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Measurement Book

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Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(17)	Supplying and laying of L.T.U.G Cable having aluminium conductor PVC Insulated sheathed galvanised steel wire/steel tape armoured Cable with PVC outer sheating 1.1 KV class 4 core 16 sqmm Cable (Conforming to IS 1554),						
		2	30.00	–	–	60.00/Mts	
		@ Rs. 169.00					10140.00

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(18)	Digging of trenches of 0.60 mm x 0.50 Mtr wide refilling the trenches to the required ground level and consolidation etc. Complete Sutting Road Surfaces.	2	30.00	–	–	60.00 Mtr	
					@ Rs. 56.00		3360.00
(19)	Supplying and fixing Class-A GI Pipe on Pole/Wall/drain crossing with necessary Clamping arrangements for U G. Cable of 1.1 KV Class 40 mm.	2	3.00	–	–	6.00 Mtr	
					@ Rs: 294.00		1764.00

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Measurement Book

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Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(20)	Supplying and fixing wiring earth electrode for grounding Conduits, IC cutouts and other equipments on the meter board using 40mm dia 2.90 mm thick GI pipe 2.5 mtr long buried in a pit/ the pit should be filld with equal Roportion of Salt and charocal 150 mm around the pipe to Complete depth the connections from the pipe to the Conduit etc, is to be established though GI wire of size						

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	as per ISI Specification 7.3.3 of ISI 732 using 12mm dia boalts, nuts washers and chek nuts etc. the pipe shall have 16 through holes of 122 mm dia.						
		2	-	-	-	2 nos	
			@ Rs. 1699.00				3398.00
(21)	Supply and fixing LT Cast iron pot heads Suitable for 1.1 KV class 16 sqmm UG Cable filled with necessary bitumen/insulating Compound Complete with terminals. Clamps, bolts nuts and Washers etc.-						

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M. A. R. 57 (Rule 116)
Measurement Book

No. B 497245

No. .....

of Work ..... From..... To.....

of Contractor of nature of Agency .....

f commencement of work .....

Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
	Number	Length	Breadth	Depth		
2	3	4	5	6	7	8
	2	-	-	-	2 nos	
		@ Rs 271.00				542.00
Supplying and fixing of polished wood board Made of ~~the~~ not less then 15mm thick Plank on both sides with planks Made out on not more than 2 pieces and fixing the Same to wall using tapered inverted wooden Plugs screws etc.. Size 20x20x2.5 inches.						
	2	-	-	-	2 nos	
		@ Rs 311.00				622.00

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(23)	Borewell Cap and Clamp Set,	2	-	-	-	2 Set	
			@ Rs. 311.00				622.00
(24)	Supply and delivery at site brand new texmo/Innoval/ Lubi/Sabar/Atalanta/Calamal/waterman/Radha Make Suitable HP deep well Submercible pump set Suitable for Vertical installation in 150 dia borewells Compressing of Single Stage or multi Stage CF Pump Close Coupled by means of Stainless Steel Coupling to Suitable HP Suitable Speed totally enclosed						

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M. A. R. 57 (Rule 116)
Measurement Book

No. B 497248

Serial No. .....
Name of Work ..... From..... To.....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	and ~~fitting~~ filled with Pure drinking water squirrel Cagesubmercible Induction motor Suitable for operation of 3Ph 50 Hz. 380/440 volts AC Supply fitted with required accessories Such as suction. Casing. Suction strainers, Sand ~~guard~~ ~~guard~~ guard. Non return valve etc Complete the Pump and Motor Shall from an integral unit with all the required fittings 17.50 HP 30 Stage.						
		2	—	—	—	2nos	
				@ Rs. 72126.00			144252.00

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Referen to last Measuren
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(25)	Providing. laying and Jointing GI pipes Confirming t IS specification of approved make with fittings such as collars bends elbows tees nipples plu with cuts threads using ~~wiping~~ white lead and threads for Joints wherever necessary as per direction including all lead and lift etc. complete 'A' grade (excluding cost of fittings) 50mm dia GI pipe B Class.						
	Borewell-1	55	6.00	-	-	336.00 MH	
	Bore well. 2	55	6.00	-	-	336.00 MH	

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M. A. R. 57 (Rule 116)
Measurement Book

No. B 497247

No. .....

of Work ..... From..... To.....

of Contractor of nature of Agency .....

f commencement of work .....

Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
	Number	Length	Breadth	Depth		
2	3	4	5	6	7	8
				Total	672.00 Mts	
		Qty limited To			670.00 Mts	
		@ Rs: 415.00/Mts				278050.00
) Supply and fixing collar for GI Pipes 50mm.						
	2×56	—	—	—	112 nos	
		@ Rs. 180.00/Per no.				20160.00

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(27)	Supplying & Submersible Pump Cable 1x3x6..0 Sq.mm						
	Bore well-1	2x12	30.00	–	–	720.00	
		2x1	6.00	–	–	12.00	
	Bore well-2	2x12	30.00	–	–	720.00	
		2x1	7.00	–	–	14.00	
					Total	1466.00	
	Qty limited TO					1460.00	Mtg
	@ Rs.144.00/Per mtr						210240.0

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M. A. R. 57 (Rule 116)
Measurement Book

No. B 497248

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	(28) Supplying and delivery at site brand new Essen/Lotus Sunsines/ Adarsh/GK Controls best indigenous make combine energy meter-cum-control panel board unit of size 1200x600x300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph. 50 Hz. 380/440 volts. AC supply with spring loaded latch locking with a key ribs should be provided inside the door.						
		2	–	–	–	2 nos	
			@ Rs. 21000.00				42000-00

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(29)	Supplying and delivery of brand 50mm Gate Valve.						
		2	-	-	-	2 nos	
		@	Rs: 1800.00				(32)
							3600.00
(30)	Supplying and delivery of brand 50mm Non Return Valve						
		2	-	-	-	2 nos	(33)
		@	Rs: 1800.00				
(31)	Supplying and fixing MCB,						3600.00
		2	-	-	-	2 nos	(34)
		@	Rs: 900.00				1800.00

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M. A. R. 57 (Rule 116)
Measurement Book

No. B 497249

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(32)	GI pipe 40mm A class, for Electrical Pole,						
		2	2.00 Mts	–	–	4.00 Mts	
		@ Rs: 400.00					1600.00
(33)	Pot Head.						
		2	–	–	–	2 nos	
		@	Rs. 360.00				720.00
(34)	Earthwork excavation for foundation of buildings, water Supply Sanitary lines and electrical conduits either in pits or						

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	in trenches 1.5m and above in width in ordinary Soil not exceeding 1.5 m in depth including dressing the bottom and sides of pits and trenches stacking the excavated Soil clear from edges of excavation with lead upto 50m after breaking of Clods, etc.						35
	qty as per premeasurement Recorded Vide Page no: 497281 of this MB is					369.00 M3	
	@ Rs. 290.00/M3						107010.00

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M. A. R. 57 (Rule 116)
Measurement Book

No. B

497250

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	(35) Providing and Installing at site of work 63 mm (0.662) PVC pipes of 6 kg/cm2 Including cost of pipes and Specials and labour. Including lowering into trenches, laying true to line, level and perfect linking of joints leak proof Including jointing of approved type with all labour and lift charges, handling charges including encasing the pipe around to a depth not less than 15 cms with gravel or Selected earth available from the excavation etc...						

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Qty as per premeasurement Recorded vide page no: 497281/1 -82 of this MB is					820.00 M	
	@ Rs: 390.00/Per Mtr						319800.0
(36)	Refilling available earth around pipe lines. Cables in layers not exceeding 20 cms in depth. compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per Specifications.						

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M. A. R. 57 (Rule 116)
Measurement Book

No. B 497251

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Qty Vide Item no 34 is 369/M3						
	@ Rs. 115.00						42435.00
	Bescom Deposit and Metar Charges						
		2				2nos	26520.00
	CFC UDW 100+11430+1730 = 13260.00						
						Total =	1813297.00

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Certificate:- Certified that the above work done is Satisfactoraly. C/F						

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